

LOW LATENCY MULTI-LEVEL COMMUNICATION INTERFACE

ABSTRACT OF THE DISCLOSURE

- 5 A memory system uses multiple pulse amplitude modulation (multi-PAM) output drivers and receivers to send and receive multi-PAM signals. A multi-PAM signal has more than two voltage levels, with each data interval now transmitting a "symbol" at one of the valid voltage levels. In one embodiment, a symbol represents two or more bits. The multi-PAM output driver drives an output symbol onto a signal line. The output symbol represents at least two
10 bits that include a most significant bit (MSB) and a least significant bit (LSB). The multi-PAM receiver receives the output symbol from the signal line and determines the MSB and the LSB.